

## Analog Video / Digital Antecedent

### The Pioneering Work of Woody Vasulka and Steina

I met Woody and Steina in the mid eighties in Los Angeles where many American video artists would converge at the American Film Institute (AFI) Video Festival. The AFI festival was one of the best, if not the single best place, to see the latest works of artists such as Gary Hill, Bill Viola, Woody Vasulka, Ed Emshwiller, Lynn Hershman, George Kuchar, et al. In the intervening years federal support for the arts in the United States was squeezed to such an extent that creative activity was either forced abroad (Europe in particular), or artists consciously sought to re-frame video experimentation into existing visual forms such as sculpture or installation to gain access to both gallery and museum venues in the United States. The success of artists such as Bill Viola is related, in part, to an effort to associate video-art with a romantic painterly tradition – something that the Vasulkas find antithetical to the medium's unique or defining traits. Much has been said about the adverse effects of these governmental policies on the experimental media arts community and, as such, this consideration can inform those who approach the rich body of ground-breaking work created by the Vasulkas in the 70's and 80's developed under the aegis of the NEA and other sources.

I was a grad student at CalArts at the time (1984) and Vasulka's approach was well known to the small group of us who were combining analog image synthesis, image processing, performance, sound and other fractured narrative and poetic approaches to video. In retrospect this was a pivotal moment when analog technologies had reached a zenith and digital methods were rapidly coming of age. I think one of the most significant observations I can draw is that analog video-sound tools provided artists an ability to work with physical interfaces in real-time, whereas, digital visual approaches were still largely tied to a wait and render approach. I would posit that too much has been made of "digital" as an interactive medium in light of the fact that we are still trying to capture many of the best attributes of "analog interactivity", a fact that is not lost on the emerging generation of digital media artists, machine performers, composers and programmers who are including "retro" or "old media" references in their work.

At that precise moment I was not fully aware of the importance of what Woody and Steina had achieved, as I was committed to what I perceive now as the allegiance to the "masterpiece", i.e, a work that contained a full integration of multi-media form and concept that served as a singular objectified experience of mastery. While neither,

Woody or Steina would necessarily refute this as a meaningful artistic goal, they, themselves had freely invented a new lexicon and grammar for a dynamic real-time sound and visual medium where the attributes of “The Signal” itself became the fundamental vocabulary at play. Much like today’s programmer-artists or artist-engineers the Vasulkas actively sustained a practice to develop new hardware tools using both analog, digital and hybrid analog-digital techniques. Interestingly, they did not seek this role because of some prior training in engineering but rather through the lens of the artist who is capable of perceiving and exploiting the primal attributes of any given medium, material or system. It is interesting to note that Woody has frequently mentioned his interest in integrating these new tools and vocabularies into a new form of stage production or “opera” while simultaneously denigrating any notion of narrative conceit that is to be found in the *“Heroes Journey”*. Steina will mention with great pride that neither she nor Woody have any interest in a political or social art though this does not stop all of us from discussing such matters for hours on end. While I am quick to point out the inconsistencies of this stance, illustrated by such works as “The Art of Memory”, I would underscore the fact that both artists are deeply committed to uncovering the elemental natures of both the analog and digital video mediums with a particular attraction to the non-linear interplay of sound and image streams.

It has been my good fortune to have had many older friends and colleagues among both the pioneers and second generation of video/electronic-art pioneers. Through somewhat random circumstances I came to Santa Fe, New Mexico in the mid nineties where I became part of the extended community of forward thinking artists that would often constellate around the Vasulka adobe. I suppose this is not much different than the impetus for founding “The Kitchen” as a nexus for exhibition, discussion and camaraderie, as artists have descended here from around the globe to share in the mix of New Mexico’s physical beauty, techne and poetics.

I imagine that anyone participating in a discussion of the historic importance of the Vasulka approach must grapple with the nature of both Woody and Steina’s collaborative relationship. Many will associate a kind of lyricism with Steina’s use of landscape and figurative studies in contrast to Woody’s preoccupation with autonomous machine systems and video signal architectures. It is easy to jump to a simplistic and quasi-sexist assessment that Woody must be motivated by technical concerns and Steina must be the more poetic. In my own observation nothing could be further from the

truth, in as much as, Steina often takes a very systematic exploration of both technical and formal aesthetic procedures while Woody will unhinge an audience with his deeply poetic understanding of human nature. In other words, theirs is a much more complex and integral dialogue that is not easily disassembled into a simple set of interests, tastes and approaches. In the circumstance that two artists may work so closely together in one instance and far apart in another, their work is inevitably informed by a shared or overlapping intellectual quest. With that said, I will try to delineate a number of important modes of inquiry present in the Vasulka's work that I believe are important to the practice of newer digital forms and concerns of younger artists, programmers and media scholars.

Among Steina's notable works are a number of pieces that exploit the possibilities of multi-screen matrices in the form of varied multi-monitor installations. While Nam June Paik's spectacular public art works are more often associated with this approach, it was Woody and Steina who first began the formal exploration of the cathode ray monitor-grid. The results of this examination takes stunning form in works such as Steina's "The West", completed in the early 80's, where vast southwestern panoramas appear to drift from screen to screen, each stacked in careful array, much like the Anasazi stone structures of Chaco Canyon depicted in the video imagery. This preoccupation with the compound image matrix takes an early digital form in Woody Vasulka's abstract drama titled, "The Commission". In this work, Woody experiments with the possibilities of creating an "electronic opera" based on the relationship between composer, Hector Berlioz and raconteur violinist, Niccolo Paganini. The work opens with an arresting and memorable overture in the form of a multi-image matrix caught in a perpetual fluid zoom to create a hypnotic visual pulse. The multi-image matrix is now a standard, if not banal, aesthetic feature appearing as an "instant-art filter" in many popular video software applications. Like many of today's readily accessible algorithmic processes, it is easy to dub every image processing technique as a "special effect" and overlook the deeper aesthetic possibilities inherent in this new and evolving digital language.

I have already alluded to the significance of developing new tools for aesthetic exploration. In the nineties Steina brought her earlier analog exploration into the digital realm working closely with programmer Tom Demeyer at STEIM in Amsterdam (<http://www.steim.org/steim>) to develop IMAGE/ine, the first digitally modeled interactive video application for live performance and installation. IMAGE/ine has been

acknowledged by other programmers who have developed a number of related applications (<http://portal.acm.org/citation.cfm?id=1085916>) including NATO, PD, Isadora, Processing and Jitter. Steina has used the resulting IMAGE/ine software to create a number of installation works beginning in the mid nineties.

Steina's video-performance work "Violin Power" was an early example of the use of random access or database interactivity to exploit the real-time manipulation of video and sound fragments. In this case she utilizes an analog video disc player controlled by a violin equipped with a pitch to midi converter to address each uniquely numbered video frame. During this time period many artists were using Pioneer Video Disc players for both their industrial stability and ability to synchronize multi-channel / multi-screen playback. Steina fully exploited the quick random access playback potential of this technology presaging the contemporary practices utilizing digital database for new narrative and live cinema paradigms.

Another important lineage in the work of both Woody and Steina is the interest in synchronous audio-visual behaviors. This interest extends beyond the often discussed relation of sound to image we find in cinema with its attendant proclivity towards illustration and mimicry. The pair discovered new possibilities in electronic systems for rendering the image as sound and the sound as image. Lev Manovich lists "transcoding" as one of the essential conditions of "new media". It would be appropriate to suggest Steina was among the first to approach this new possibility prior to digital trans-coding techniques. It is a significant fact that Steina was originally trained as a musician but was able to throw off any of the traditional aesthetic trappings of tonal music in her avid exploration of sonic-visual phenomena. In retrospect, the Vasulkas were among the first artists to exalt in "machine noise", an area of practice that has now reached something of a cult preoccupation with younger sound-artists. This fact is actually more important to a wider discussion of machine aesthetics where unintended "systems artifacts" can lead to reevaluation of aesthetic intent and an expanding audio-visual vocabulary not originally envisioned by the artist. For myself this has meant the development of new digital systems for the generation of complex or emergent behavioral models premised both on ecological communities and "organism-like" audio-visual performance idioms.

In a related area the Vasulkas were also among the first to explore basic systems behavior including visual time delays, feedback, low frequency color modulations and host of automated cutting and image combination techniques. I believe their examination of these electronic processes were far more systematic and perhaps “self-aware” than the approach of their colleague Nam June Paik. I have “played” both the Paik-Abe video synthesizer and a number of the integrated machines and circuits utilized by the Vasulkas and have found Nam June’s instrument to be considerably more limiting. This observation only serves to point out the different goals and problems set forth by these historic practitioners as a topic that could bear further study. These explorations would lead others to postulate about the nature of complex systems relative to the study of cybernetics and chaos. The aesthetic results of these experiments suggest some of the first examples of media automation, generative aesthetics, non-linear dynamics and autonomous behavior which many now see as central facets of digital arts practice.

I have specifically covered some of the formal lines of inquiry that suggest that both Woody and Steina might be seen as central figures leading to current and future areas of digital practice. I have left aside much of the attendant discussion regarding specific visual content though I feel Steina’s quote about her piece **Orka** is very informative. I would stress that the technical dimension reflected specifically in systems design of hardware and software is not some distant or separate activity. In considering the works of Steina and others like her, the poetic intent or conceptual dimension of the work is often embedded in the design of the tool itself. This becomes particularly meaningful when we consider a redefinition of the computer as a media-production tool to a more accurate appraisal of the computer as a distributed network medium.

David Stout 2007

## **ORKA - 1997**

*STEINA: “My background is in music. For me, it is the sound that leads me into the image. Every image has its own sound and in it I attempt to capture something flowing and living. I apply the same principle to art as to playing the violin: with the same attitude of continuous practice, the same concept of composition. “Since my art schooling was in music, I do not think of images as stills, but always as motion. My video images primarily hinge upon an undefined sense of time with no earth gravity. It is like a duty to show what cannot be seen except with the eye of media: water flowing uphill or sideways, upside down rolling seas or a weather beaten drop of a glacier melt. “The idea is that perhaps the audience could feel a part of this creative trance, living for a moment in a mental world where they have never been.”*